

Choosing family medicine

What influences medical students?

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ABSTRACT

OBJECTIVE To explore factors that influence senior medical students to pursue careers in family medicine.

DESIGN Qualitative study using semistructured interviews.

SETTING University of Western Ontario (UWO) in London.

PARTICIPANTS Eleven of 29 graduating UWO medical students matched to Canadian family medicine residency programs beginning in July 2001.

METHOD Eleven semistructured interviews were conducted with a maximum variation sample of medical students. Interviews were transcribed and reviewed independently, and a constant comparative approach was used by the team to analyze the data.

MAIN FINDINGS Family physician mentors were an important influence on participants' decisions to pursue careers in family medicine. Participants followed one of three pathways to selecting family medicine: from an early decision to pursue family medicine, from initial uncertainty about career choice, or from an early decision to specialize and a change of mind.

CONCLUSION The perception of a wide scope of practice attracts candidates to family medicine. Having more family medicine role models early in medical school might encourage more medical students to select careers in family medicine.

RÉSUMÉ

OBJECTIF Déterminer les facteurs susceptibles d'amener les étudiants en médecine seniors à opter pour une carrière en médecine familiale.

TYPE D'ÉTUDE Étude qualitative à l'aide d'entrevues semi-structurées.

CONTEXTE L'université de Western Ontario (UWO) à London.

PARTICIPANTS Onze des 39 diplômés de médecine de l'UWO assignés à des programmes canadiens de résidence en médecine familiale (MF) débutant en juillet 2001.

MÉTHODE Des entrevues semi-structurées ont été menées auprès de 11 étudiants présentant les caractéristiques les plus variées possible. Les entrevues ont été transcrites et révisées indépendamment, et une méthode de comparaison continue a été utilisée par l'équipe pour analyser les données.

PRINCIPAUX RÉSULTATS Le contact avec des médecins de famille durant la formation avait beaucoup d'influence sur la décision de poursuivre une carrière en MF. Trois voies ont amené les participants à choisir la MF: certains l'avaient décidé précocement, d'autres après une période d'incertitude sur leur choix et d'autres encore après avoir d'abord choisi une spécialité.

CONCLUSION La perspective d'un champ de pratique très varié attire les candidats en MF. Le fait d'être exposés plus souvent et plus tôt dans le cours à des modèles de MF pourrait inciter plus d'étudiants à opter pour une carrière dans ce domaine.

This article has been peer reviewed.

Cet article a fait l'objet d'une évaluation externe.

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Important experiences that encourage medical students to choose careers in family medicine (FM) include early exposure to meaningful FM experiences, contact with family physician role models, and opportunities to see the diversity of family doctors' practices. In addition, students appreciate seeing the importance of patient-doctor relationships and the value of cumulative knowledge about patients gained over time.

Students arrived at their decision to pursue FM in different ways. Some had an early conviction before medical school; others were ambivalent at first but were convinced by their FM experiences; and still others switched from another speciality after exposure to FM. This study implies that more in-depth, preclinical exposure of students to FM would improve our discipline's chances of recruiting them.

The past few years have seen shortages of family physicians in urban and remote areas throughout Canada. The projected shortfall of family physicians over the next 5 years will be further strained by an aging population that requires more health care services. Ontario's population is expected to grow by 25% over the next 20 years, and the proportion of people older than 65 is expected to expand by as much as 70% over the same period.¹

Although there is an increasing need for family physicians, fewer graduating medical students are choosing careers in FM, as evidenced by recent Canadian Residency Matching Service (CaRMS) matches. In 1982, 40% of Canadian medical school graduates made FM their first choice for residency training. By 1996, the proportion had fallen to 32%, and by 2002 to only 29%.²

Similar trends in the United States over the past 3 years reveal declining interest in FM and increasing interest in subspecialty career choices.^{3,5} Schafer and colleagues⁶ suggested that students rejecting FM were more likely than their colleagues rejecting other specialties to cite insufficient prestige, low intellectual content, and concern about mastering too broad a

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content area as reasons for the rejection. There is little literature documenting why students choose careers in FM. In other countries, which have also experienced a decline in students choosing FM, several personal, professional, and systemic influencing factors have been identified. For example, Blades et al⁷ asked junior doctors in northern England about what affected their decisions about careers in FM. Respondents said they were hoping to find work where they could readily apply their clinical skills in settings where their personal needs were recognized. They also voiced concerns about the managerial orientation, professional isolation, and paperwork of general practice.

Canadian medical students might see career choices in FM as less desirable than other specialties as they observe increasing demands on family physicians' time that are exacerbated by hospital restructuring and downloading care into the community.⁸ Medical students fear that governments will try to force newly graduated family doctors into remote, rural, or "underserved" practice locations.⁹ History has shown some justification for this fear. Well publicized survey data reveal that an increasing proportion of family physicians feel overworked, stressed, and dissatisfied with medical practice in recent years.¹⁰

Fee-for-service payment systems have disadvantaged family physicians relative to their specialty colleagues who are able to bill disproportionately high fees for "high-tech" procedures. Primary care reform initiatives are encouraging family physicians to work in groups, consider blended funding models, and provide contingency plans for their patients after hours.^{11,12}

Finally, Canadian postgraduate medical education requires students to choose a specialty early in their training and gives them little opportunity to reenter an alternative residency training program after they have been out in practice. Career choices need to be made by the end of third-year medical school so that appropriate elective experiences and reference letters can be obtained before applicants submit residency applications to CaRMS early in fourth year. Those who seek career changes but are unable to alter their career paths face additional stresses and uncertainties.¹³

Career decisions are no doubt complex, dynamic, and individualized. Use of qualitative inquiry can enhance our understanding of what goes into these decisions by identifying new factors and further describing known factors affecting career choice.^{14,15} Kuzel and Moore¹⁶ used focus groups to investigate how medical students made career decisions. They learned that students hoped to have control of their

future practice, fair compensation for their efforts, intellectual challenge, and rewarding relationships with patients and their own families.

In this study, we sought to learn more about how and when graduating medical students from the University of Western Ontario (UWO) made career decisions that led them to FM residency.

METHODS

A qualitative study, using semistructured interviews, was conducted with a maximum variation sample of UWO medical school graduates entering postgraduate training in FM in 2001.

Setting

The UWO, which houses one of Canada's 16 medical schools, is situated in London, a city of 350 000 people in southwestern Ontario. This area is medically one of the most underserved regions in Ontario. The 118 first-year students complete a 4-year medical school program with a third-year clerkship. Training comprises a compulsory rural week experience in first year and a 6-week FM block during the third-year clerkship (2 weeks in an academic family practice teaching unit and 4 weeks in a community-based family practice).

Sample

The purposive sample included 11 of 29 UWO medical school graduates known to be entering Canadian FM residency training programs in July 2001. Maximum variation was based on sex, residency location (UWO or non-UWO), rank in the UWO internal match (high or low), and program context (rural or non-rural). Students were invited to participate through an e-mail request from the principal investigator and follow-up telephone contact from a research assistant. All subjects contacted consented to be interviewed.

Participants

Five men and six women participated. Five had been matched to the FM residency program at UWO, five others had been matched to other FM programs in Ontario, and one was matched to a program in another province.

Data collection

Interviews were semistructured and based on questions determined by the researchers following a literature review. For example, "How and when did you come to decide on FM as a career choice?" "What

were your experiences of FM in medical school?" "Can you think of examples of how your medical school training portrayed FM in a positive or a negative light?" and "How much influence did medical school teachers have on your choice of residency training?"

Interviews were conducted by one of three experienced interviewers who were free to depart from the interview guide to explore areas in greater depth. The interview guide was revised to cover themes that emerged during initial data analysis. Interviews were conducted face-to-face with six participants and by telephone with five participants. Three of the interviews were conducted in the last few weeks before completion of medical school; the remaining eight interviews were conducted during the first month of residency training. Interviews lasted 45 to 60 minutes and were augmented by field notes comprising the interviewer's postinterview reflections. Interviews and field notes were audiotaped and transcribed verbatim.

Analysis

A constant comparison approach was used to analyze the data. Transcripts were read independently by members of the research team to identify key words and themes. Following initial reading, a coding sheet was designed and used as a basis for comparing researchers' interpretations. The research team met regularly to review emerging themes, patterns, and connections. Final analysis used immersion and crystallization to synthesize key themes.¹⁷

Data saturation was reached following the ninth interview. The final two interviews allowed for member checking. All the investigators were involved in the primary interview analysis and in the final process of clarification of major themes and interpretations. The study was approved by the UWO Review Board for Health Sciences Research Involving Human Subjects (review no. 08260E).

RESULTS

Important experiences that influenced graduating medical students to choose FM as a career included early exposure to meaningful FM experiences, contact with family physician role models, and opportunities to observe the diverse nature of family doctors' work.

Early exposure to meaningful FM experiences

Meaningful early experiences were an important influence on participants who entered medical school knowing they wanted to become family physicians. This included developing trust and respect for a

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family physician who cared for them while they were growing up. "I grew up in a small town, so most of the doctors that I knew were family doctors. So that's the kind of medicine I was thinking about anyway when I got interested in medical school." These early mentoring relationships could continue through medical school. "My family doctor growing up has always been a good role model. I actually went and did electives with him in first-year med school."

Contact with family practice role models

Opportunities to observe good role models in first-year medical school could have a powerful effect on career choice.

Meeting Dr A. as part of rural week in first year emphasized to me how family doctors do more than 10-to-4 office practice. They do a lot more—in the emergency department at 8:00 AM, doing minor procedures, they're on call, they do a variety of things. I hadn't been exposed to this before.

Conversely, lack of exposure to family physicians during preclerkship years was identified as a problem. "In the preclerkship years you really don't get very much exposure to family medicine. It would have been good to have a family doctor in say GI week come in and talk to us about an approach to the patient with abdominal pain, for example." Family physician role models during clerkship also affirmed the merits of a career in FM.

I had a clerkship experience in family medicine I really enjoyed. My supervisor in St Thomas was so up on all of the research, so willing to teach, so knowledgeable and very good with his patients. I really saw that he was making a big difference in their lives.

Effective role models demonstrated the importance of patient-doctor relationships. Speaking of a physician with whom she had worked during clerkship, a participant stated, "Dr V. is the most patient-centred person I've ever met. He sees a million patients a day, but when you're in the office seeing a patient with him, it seems like he has all the time in the world for that person. It's wonderful." For these students, exposure to role models showed them the value of cumulative knowledge of patients gained over time.

I did a family medicine elective where I was able to see patients over and over again. The emphasis was on the doctor-patient relationship and the whole concept of

continuity of care. I could see that my supervisor loved his job, and he went out of his way every day to tell me what he enjoyed about his work.

Participants perceived these role models as playing an indispensable role in their patients' lives. "I liked the way he knew the patients, he knew the family and what happened to the grandmother and why this was important. That was the thing that made me think family medicine was different and better for me."

Diverse nature of the work

Opportunities to observe the diversity of family practitioners' work was a strong attraction for participants choosing careers in FM: "I did a lot of electives on my own in first and second year and liked most of them. The variety just reinforced my interest in family medicine." There was a perception that they could continue to take a broad-based approach to medical practice and enjoy the rewards of providing care in diverse settings and circumstances: "I loved just about everything I went through, so family medicine for me just allows me to continue that flexibility."

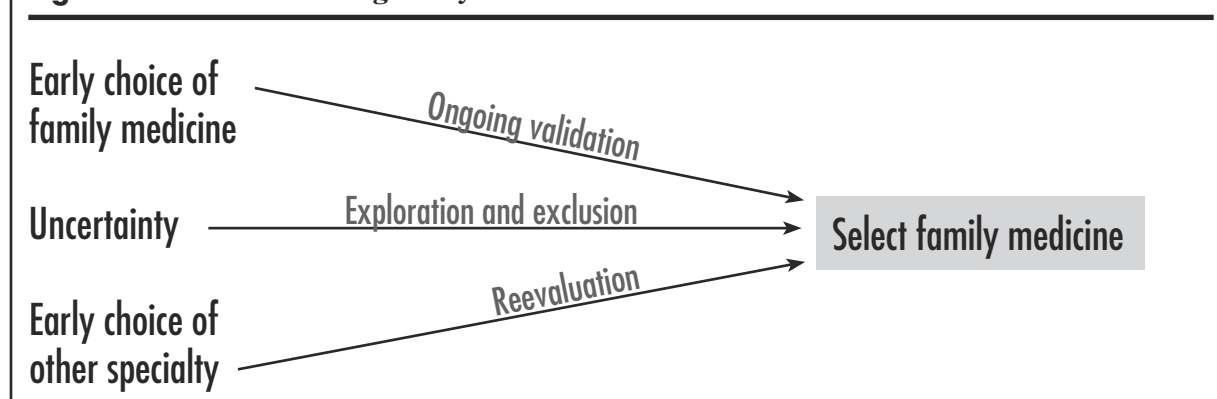
The ability to adjust their scope of practice through various stages of a career was also attractive to many: "The beauty of family medicine is that you dabble in so many different things and throughout your life within practice you can choose to focus on different areas at different times."

Deciding on family medicine

Participants had arrived in FM residency via one of three pathways (**Figure 1**). Some had had an early conviction to become family physicians: "My high school yearbook says my goal is to be a successful family doctor. My mom is a nurse, so I always thought about health care as a field that I'd like to go into." As they proceeded through medical school, their decisions were validated by positive encounters with family physicians. "My family doctor for over 10 years, I worked with him directly, and it's amazing when you work on a one-to-one basis. He was extremely impressive in his clinical skills."

Others went through stages of uncertainty and exploration during their medical education and began to rule out various options. "I think I ruled a lot out in second-year medical school. I did a lot of electives in many different clinical rotations." As they learned more about family medicine, the decision became clearer. "I had no concept of what family medicine was before I got to medical school. So it really took me a while to sort of figure out what it really was."

Figure 1. Paths to choosing family medicine



Yet others had made an early career choice but, based on their medical school exposure to the chosen discipline, became disillusioned with their initial choice. "I was thinking about general surgery but moved away from that mostly because of lifestyle and the 5-year residency. I was set on anesthesia, but realized that it's not something I would want to do 5 days a week. You miss the patient contact." Upon further reflection, these students determined that FM was best suited to what they wanted to do.

I didn't think I'd like to be a family doc initially, but going through all the rotations and seeing the lifestyles and what they did on a day-to-day basis, family doctors had a wide variety of interests and seemed to have a very unique basis to focus their practice in whatever field they like.

DISCUSSION

This study's findings illuminated key aspects of the process through which medical students choose careers in FM. Ongoing exposure to, and experiences with, family doctors during medical training and earlier in life validate and reinforce medical students' decisions to pursue careers in FM. The influence of role models agrees with findings of three earlier American studies of primary care career choice.¹⁸⁻²⁰ This study also revealed that, in this context, a family physician can become a familiar and comforting presence. Admiration might develop into a wish to emulate such a person by choosing to pursue a similar career.

The most important finding of this study is perhaps a greater understanding of the various pathways students take in the decision-making process. We identified three that students appear to take in choosing careers in FM (**Figure 1**). Knowledge of these

pathways is critical for FM educators and preceptors as they direct and guide students. For example, ensuring ongoing validation and support for a career choice in FM might encourage more students to choose FM.

In the first 2 years of medical school, many students are uncertain about a future career. It is essential for them to see family physicians on the job so they can see the enjoyment and satisfaction they obtain from their daily work. It is important to highlight the opportunities a career in FM can offer and the satisfaction it can provide. Students need to see the high regard patients have for their family physicians and learn why this is so.

To have such experiences, medical students need to spend more time out of hospitals and in the community. Time spent in both settings should be balanced so students can weigh the merits of various medical disciplines. Students also need to see family physicians teaching courses in medical schools. In the classroom, students often get to know their teachers as mentors, advisors, and role models. They ask about clinical problems and how these problems would be managed in the teachers' practices.

Students' enquiries need to be addressed from a variety of perspectives. When their questions are answered by family physicians, they learn what it might be like to be a family physician. When undergraduate students are taught predominantly by specialists, they are left to extrapolate how their clinical questions and problems would be resolved in community settings. Often, they are not challenged to think about the aspects of clinical questions that would be most relevant to family physicians. When students experience a variety of undergraduate placements, including FM, they can more fully evaluate the rewards offered by all of the various career alternatives.

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It is important for FM recruitment efforts to ensure that the discipline is well represented in undergraduate medical education. Increased interest in primary care has been demonstrated when there is increased exposure to primary care electives in medical school.^{21,22} This includes a demonstrated respect and understanding from other medical disciplines of family physicians' important role in the health care system. It is essential that family physicians work closely with their colleagues in other disciplines to plan curriculums and participate in collaborative teaching efforts.

Limitations

Not all interviews were completed before candidates began their FM residency training programs. Our findings reflect only the views of candidates matched to FM residency programs. Input from candidates entering other specialty training programs could also contribute to our knowledge of career choices surrounding FM and is thus an area for future study.

Conclusion

The scope of practice opportunities and the diversity of the work attract candidates to FM residency programs. Also, the independence and freedom to shape practice to best meet individual and community needs is appealing to future family physicians. The presence of FM role models early in medical school might encourage more medical students to select careers in FM. Given the decreasing number of applicants to FM residency programs, it might be beneficial to explore these factors more fully, in an attempt to attract those physicians best suited to family practice into the profession. ♦

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Contributors

Dr Jordan, the lead author, developed the concept for the study, reviewed the data, participated in data analysis, and wrote drafts and the final version of the article. **Dr Brown** developed the methodology for the article, conducted interviews, took the lead on data analysis, and reviewed drafts of the manuscript. **Dr Russell** helped develop the concept, conducted interviews, participated in data analysis, and reviewed drafts of the manuscript.

Competing interests

None declared

Editor's key points

- Key experiences that favour a career choice of family medicine (FM) include early exposure to meaningful FM experiences, contact with FM role models, and the opportunity to see the diverse nature of family doctors' practices.
- Students appreciate seeing the importance of the patient-doctor relationship and the value of cumulative knowledge gained about patients over time.
- Students arrived at their decisions to pursue FM in different ways. Some had an early conviction developed before medical school; others were ambivalent at first but were convinced by their FM experiences; still others switched from another speciality after exposure to FM.
- The study implies that more in-depth and preclinical exposure of students to FM would improve our discipline's chances of recruitment.

Points de repère du rédacteur

- Les expériences clés qui incitent à choisir une carrière en médecine familiale (MF) incluent le fait d'être exposé précocement à des expériences significatives de MF, d'avoir été en contact avec des modèles de MF et d'avoir eu l'occasion de constater la nature variée du travail des médecins de famille.
- Être à même d'observer l'importance de la relation médecin-patient et de constater que la connaissance du patient s'accroît avec le temps est une expérience que les étudiants apprécient.
- La décision de faire carrière en MF se prend de différentes façons. Certains étudiants l'avaient décidé avant d'entrer en médecine; d'autres ont d'abord été indécis, mais ont été convaincus à la suite de leurs expériences en MF; d'autres encore ont décidé de quitter une spécialité après avoir été exposés à la MF.
- Cette étude suggère qu'une exposition plus importante des étudiants à la MF dès le niveau préclinique améliorerait le recrutement dans cette discipline.

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